IN THE SPECIFICATION:

Please replace the paragraph beginning at page 4, line 7 with the following new paragraph:

When using imaging optics with a lateral magnification of one time such as a rod lens array, the size of an image spot is larger than that of the source due to aberrations of a lens or MTF degradation. The required size of an image spot ranges from about 60 to 80 microns for a resolution of 600 dpi, and ranges from about 30 to ~~30 microns~~ 50 microns for 1200 dpi. The size of an emitting portion of an LED source is several microns and therefore may be considered as a point source, which results in a smaller load on the imaging optics, realizing the above size.

Please replace the paragraph beginning at page 4, line 24 with the following new paragraph:

~~The~~ Various embodiments of the present invention ~~has~~ have been made to overcome the above problems~~. An object of the present invention is to solve~~ and address the cost and technological problems of LEDs as mentioned above by making the most use of organic EL to apply it to an exposure device, thereby producing an exposure device that is small and inexpensive.

Please replace the paragraph beginning at page 4, line 28 with the following new paragraph:

An exposure device according to an embodiment of the present invention includes: a substrate; an emissive element array provided on the substrate and having a plurality of organic EL

emissive elements arranged linearly; and a drive circuit provided on the substrate and including an element switching the organic EL emissive element, where the organic EL emissive element has an edge emission structure emitting light in an edge direction that is perpendicular to a direction of deposition of electrode layers and organic compound layers, and the emitting area of one emissive element, (S), as viewed in the direction of deposition, and the period of the emissive elements disposed side by side, (d), satisfy the relationship of $S > d^2$.

Please replace the paragraph beginning at page 5, line 18 with the following new paragraph:

~~Preferably, in~~ In one embodiment of the above exposure device, the organic compound layers have a thickness that is smaller than a central emission wavelength, and the exposure device has an optical waveguide layer with a thickness greater than the central emission wavelength on the side of the electrode layer opposed to the organic compound layers. More preferably, the optical waveguide layer has a first transparent layer of a refractive index of n1 in contact with the organic EL emissive element and a second transparent layer with a refractive index of n2 in contact with a portion of the first transparent layer that is out of contact with the organic EL emissive element, where the refractive index of the first transparent layer, n1, and the refractive index of the second transparent layer, n2, satisfy the relationship of n1 > n2.

Please replace the paragraph beginning at page 6, line 8 with the following new paragraph:

~~Preferably, in~~ In an embodiment of the exposure device, the organic compound layers on the side of the electrode layer that is opposed to the first transparent layer have a refractive index, n3, that is smaller than the refractive index of the first transparent layer, n1. This can achieve a smaller percentage of light propagated in the optical waveguide layer that returns to the emitting layer, thereby improving the efficiency of use of light.

Please replace the paragraph beginning at page 6, line 13 with the following new paragraph:

~~Preferably, the~~ The exposure device ~~has~~ may have a light-absorbing shading wall between the optical waveguide layers that each correspond to one of the organic EL emissive elements. If necessary, the exposure device has a shading wall that is non-transmissive to light and light-absorbing between adjacent ones of the organic EL emissive elements. In this way, crosstalk of light from an adjacent optical waveguide layer can be prevented, thereby providing a high-quality image. It is recognized that being light-absorbing (non-transmissive to light) means being sufficiently non-transmissive to light of the emission wavelength of an organic EL.

Please replace the paragraph beginning at page 6, line 21 with the following new paragraph:

~~Preferably, in~~ In an embodiment of the exposure device, the organic EL emissive element is constructed by providing the first electrode layer overlying the substrate, providing the organic compound layers overlying the first electrode layer, and providing the second electrode layer overlying the organic compound layers, where the second electrode layer is made of a transmissive electrode material and the optical waveguide layer is provided on the second electrode layer. This provides an effective dissipation from the silicon substrate of heat generated during emission in the organic EL portion.

Please replace the paragraph beginning at page 6, line 28 with the following new paragraph:

~~Preferably, in~~ In an embodiment of the exposure device, the optical waveguide layer has a second transparent layer with a refractive index of n2 provided on the substrate and a first transparent layer with a refractive index of n1 generally surrounded by the second transparent layer, where the organic EL emissive element is constructed by providing the first electrode layer overlying the optical waveguide layer, providing the organic compound layers overlying the first electrode layer, and providing the second electrode layer overlying the organic compound layers. This can minimize the number of the process steps for the formation of thin films overlying the organic layers, which are susceptible to heat and shock, thereby facilitating the manufacture and allowing a potentially lower cost.

Please replace the paragraph beginning at page 7, line 10 with the following new paragraph:

~~Preferably, in~~In an embodiment of the exposure device, a groove is provided in the substrate and the second transparent layer and the first transparent layer are provided within the groove. Also, more preferably, a light-absorbing shading film is provided between the inner wall surface of the groove and the second transparent layer.

Please replace the paragraph beginning at page 7, line 14 with the following new paragraph:

~~Preferably, in~~ In an embodiment of the exposure device, the organic compound layers have a three-layer structure of an emitting layer with a refractive index of n4 and sandwiching layers with a refractive index of n5 sandwiching the emitting layer and having electron and hole transporting materials mixed together, the refractive index of the emitting layer, n4, and the refractive index of the sandwiching layers, n5, satisfy the relationship of n4 > n5, and the exposure device also has a shading wall that is non-transmissive to light and light-absorbing between adjacent ones of the organic EL emissive elements. By providing this symmetrical waveguide structure of organic compound layers themselves, light can be efficiently guided without requiring an external waveguide even when the thin films have a total thickness smaller than the emission wavelength.

Please replace the paragraph beginning at page 7, line 24 with the following new paragraph:

~~Preferably, the~~ In some embodiments, the substrate ~~is~~ may be a single-crystal silicon substrate or a polycrystalline silicon substrate.

Please replace the paragraph beginning at page 7, line 26 with the following new paragraph:

Finally, an image forming device according to an embodiment of the present invention includes the above exposure device and a photosensitive material exposed to light by the exposure device.

Please replace the paragraph beginning at page 9, line 5 with the following new paragraph:

Fig. 2 shows a schematic cross sectional view of the structure of one exemplary exposure device with a cathode provided on a single-crystal silicon substrate 1. Referring to ~~Fig. 1~~ Fig. 2, the exposure device is provided with a driver circuit portion 4, an anode 22, a hole transporting layer 23, an electron transporting and emitting layer 24, a cathode 25, an optical waveguide core layer 5, an optical waveguide clad layer 6, and a shading wall 7. Of the xyz coordinates in Fig. 2, the direction z is the direction of deposition of the layers and the direction y is the direction of edge emission, and an edge emitting structure is employed where an organic EL emissive element 2 emits light in the edge direction (direction y)

perpendicular to the direction of deposition of the electrode layers and organic compound layers (direction z).

Please replace the paragraph beginning at page 9, line 26 with the following new paragraph:

In the exposure device with a structure as shown in Fig. 1, the first electrode layer is anode 12 where the material may be ITO deposited on a P-type silicon or ~~P-type~~ N-type silicon. In the exposure device with the structure shown in Fig. 2, the first electrode is cathode 25 where the material may be a lithium-aluminum alloy.

Please replace the paragraph beginning at page 10, line 2 with the following new paragraph:

Electrode materials deposited on single-crystal silicon substrate 1 or ~~single-crystal~~ poly-crystal silicon substrate 1 will be described in more detail.

Please replace the paragraph beginning at page 10, line 17 with the following new paragraph:

Before forming an organic layer (hole transporting layer 13) on anode 12, a buffer layer, not shown, may be provided as needed. The buffer layer may be made of a metallic oxide with a large work function such as vanadium oxide, molybdenum oxide or ruthenium oxide, or copper ~~phtalocyanine~~ phthalocyanine [CuPc], starburst amine [m-MTDATA], polyaniline or the like, to reduce a barrier against injection to the hole transporting layer.

Please replace the paragraph beginning at page 20, line 13 with the following new paragraph:

This is for the purpose of efficiently guiding light generated from the organic EL portion to the optical waveguide, and of facilitating the manufacture. To prevent light that has entered optical waveguide core ~~layer 6~~ layer 5 from returning to the organic EL layer which could cause a loss in the amount of light, a clad layer may be provided in contact with the electrode layer, although the refractive index of the organic EL layers may more effectively be used. Specifically, the refractive index of an organic EL layer that is in contact with the side of the electrode layer opposed to optical waveguide core ~~layer 6~~ layer 5 may be smaller than the refractive index of the core layer. Thus, the organic EL layer may be regarded, to some extent, as a clad layer, improving the efficiency in guiding light by utilizing total reflection.

Please replace the paragraph beginning at page 21, line 17 with the following new paragraph:

For example, when assuming the sensitivity of a typical organic photosensitive material, E, to be 0.5 [$\mu J/cm^2$], the process rate V to be 120 [mm/s], the resolution R to be 600 [dpi], and the efficiency in use of light in the optics [O] to be 10%, then the required energy for one surface emissive element where $S = d^2$ is generally calculated by the following equation:

$W = E \div (25.4 \div R \div V) \div O.$

Please replace the paragraph beginning at page 24, line 18 with the following new paragraph:

For example, both TPD and ~~orthoxylylene diamine~~ oxadiazole derivative (hereinafter referred to as OXD) may be vapor-deposited on the layers above and below Alq3 to provide the same refractive indices, thereby fulfilling the functions of transporting both electrons and holes. Further, to prevent crosstalk, a shading wall 16 may be provided between adjacent organic EL emissive elements 2 to fulfill the function as an exposure head. Also, the organic compound layers themselves may have a symmetrical waveguide structure to allow light to be guided efficiently without requiring an external waveguide even when the films have a total thickness smaller than the emission wavelength.